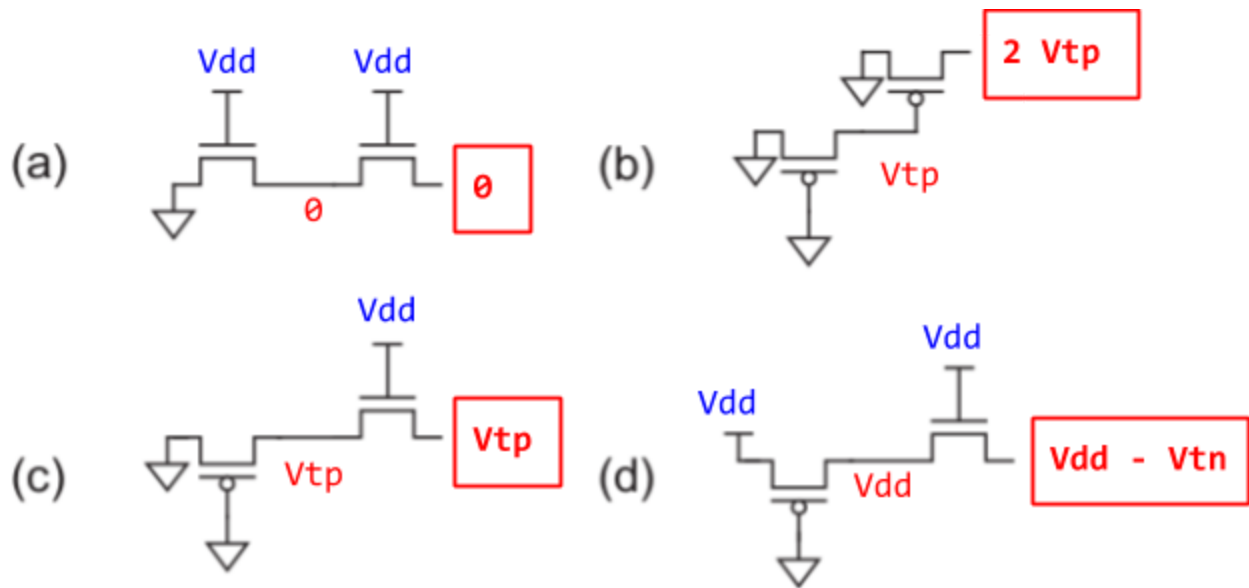


2.20 Give an expression for the output voltage for the pass transistor networks shown in Figure 2.35. Neglect the body effect.



2.21 Suppose $V_{DD} = 1.2\text{ V}$ and $V_t = 0.4\text{ V}$. Determine V_{out} in Figure 2.36 for the following. Neglect the body effect.

- a) $V_{in} = 0\text{ V}$ **0 V**
- b) $V_{in} = 0.6\text{ V}$ **0.6 V**
- c) $V_{in} = 0.9\text{ V}$ **0.8 V**
- d) $V_{in} = 1.2\text{ V}$ **0.8 V**

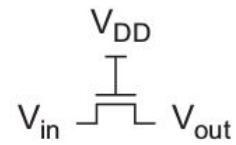


FIGURE 2.36

Single pass transistor